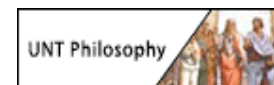


The Center for
Environmental Philosophy



UNIVERSITY OF
NORTH TEXAS

The Preservation of Non-Biological Environments in the Solar System

Eugene C. Hargrove



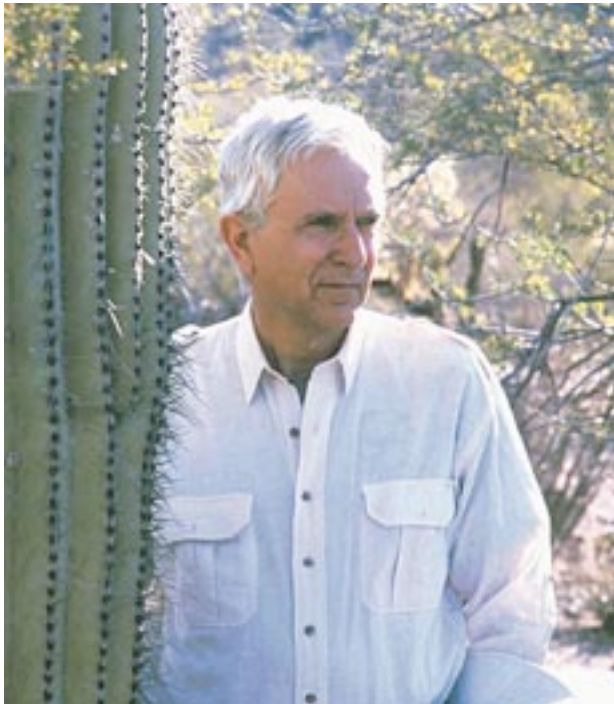
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The Development of Environmental Concern

Ethical concern for the environment developed in terms of the following:

- ❖ Landscape painting
- ❖ Landscape photography (after 1860)
- ❖ Natural history science
- ❖ Nature poetry and prose
- ❖ Landscape gardening
- ❖ Picturesque travel (Tourism)

William Hartman's Hypothesis



William K. Hartmann

**“Space Exploration and
Environmental Issues.”
Environmental Ethics
6 (1984): 227-39.**

William Hartman's Hypothesis

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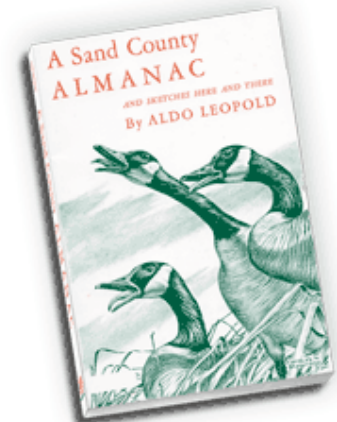
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- ❖ Others will reply that such exploitation is just business as usual. We will just do the the Solar System what we have already done to Earth
- ❖ Like the debate between the conservationists and the preservationists in the twentieth century
- ❖ The transformation could be like the conflict between the Forest Service and the Sierra Club

Aldo Leopold: “The Land Ethic”

“The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.”

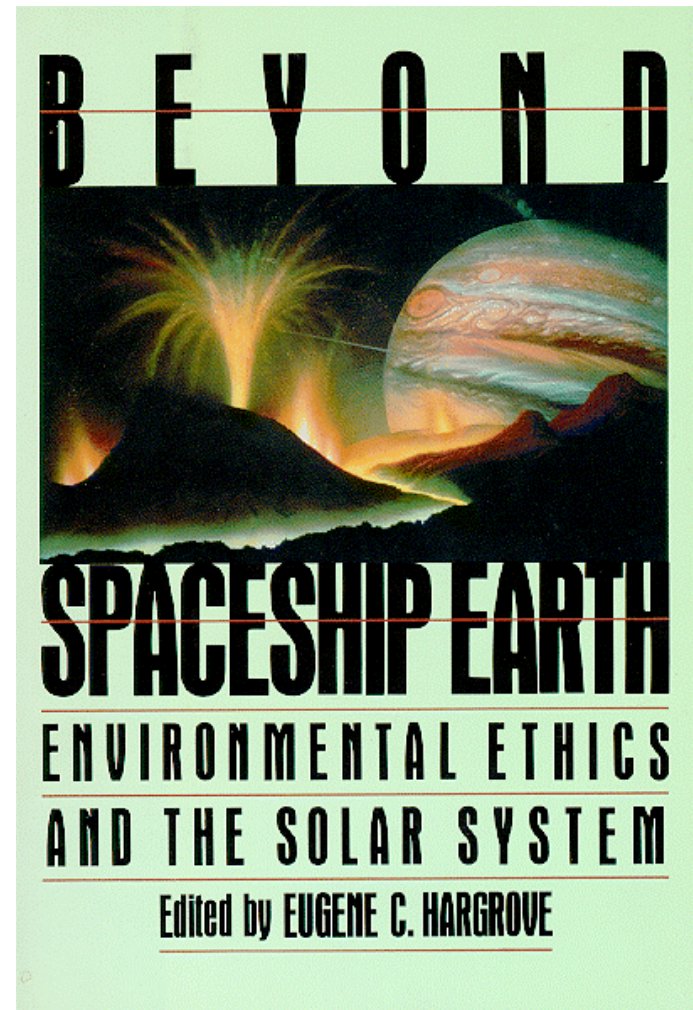


Extending Environmental Concern to the Solar System

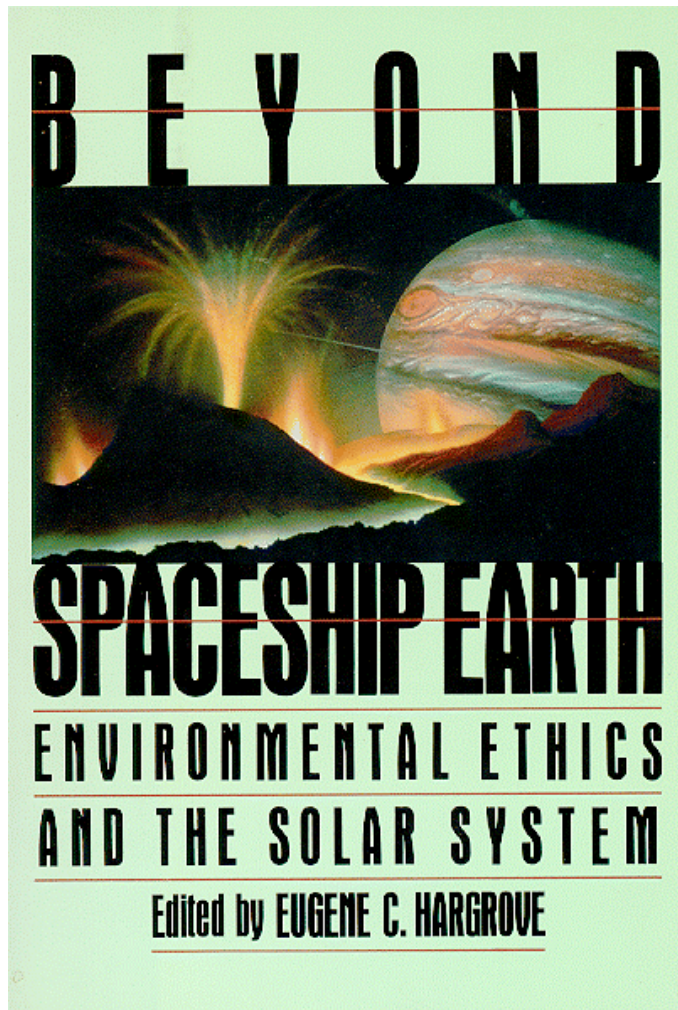
Beyond Spaceship Earth: Environmental Ethics and the Solar System

Edited by Eugene C. Hargrove

San Francisco: Sierra Club Books, 1986



Extending Environmental Concern to the Solar System



Holmes Rolston, III

“The Preservation of Natural Value in the Solar System.”

Extending Environmental Concern to the Solar System

Rolston developed his view in terms of respect for:

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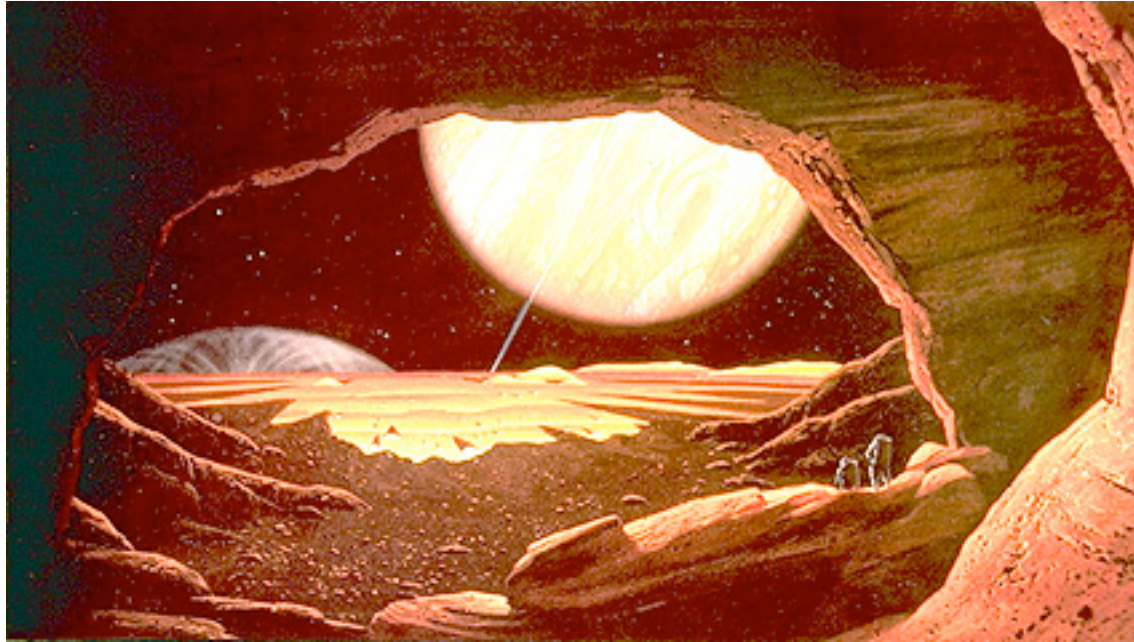
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- ❖ Places of transformative value

Places Worthy of a Proper Name



Mare Tranquillitatis (Sea of Tranquility)

Exotic Extremes in Nature



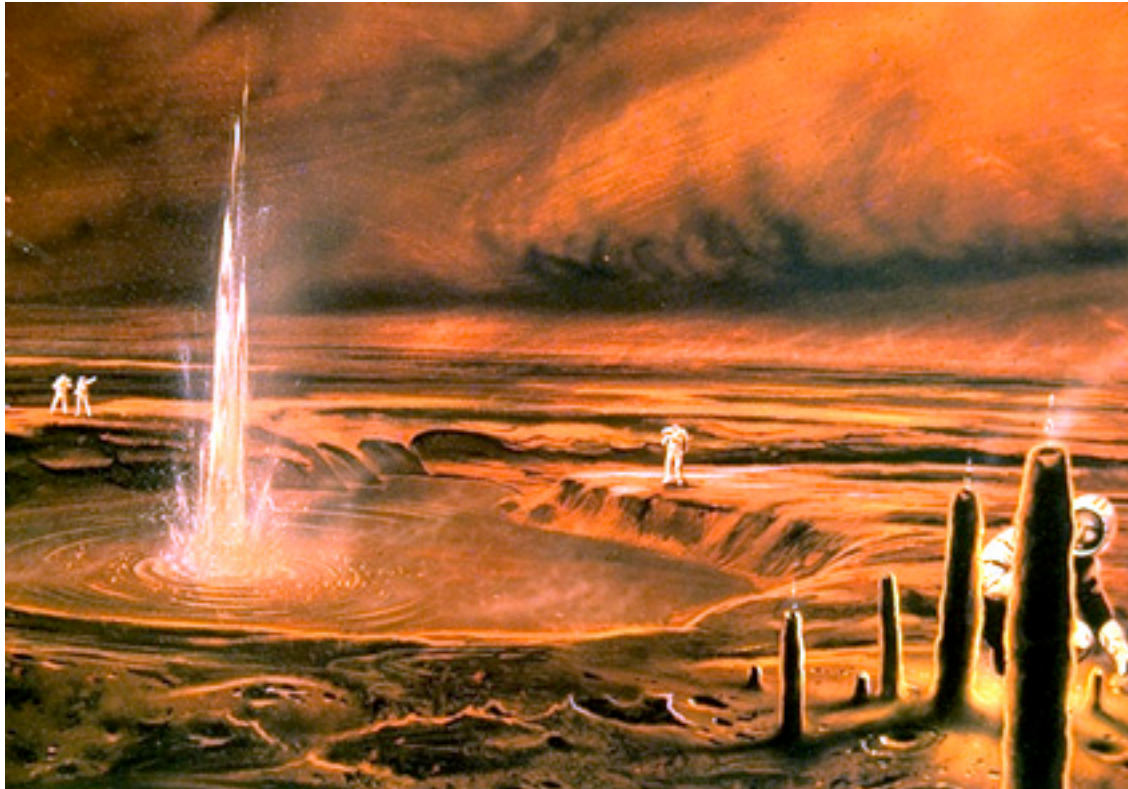
Cave on Io

Places of Historical Value



Apollo Landing Sites—Descartes

Places of Actual and Potential Creativity



Old Faithful on Titan

Places of Aesthetic Value



Martian Arches Natural Monument, Mars

Places of Transformative Value



“Giant Leap” Landing Site

Developing Aesthetic Appreciation



The Sublime—Salvatore Rosa

Developing Aesthetic Appreciation



The Picturesque—Claude Lorrain

Developing Aesthetic Appreciation



Castellated Rocks—Karl Bodmer

Developing Aesthetic Appreciation



Mountain of the Holy Cross

Developing Aesthetic Appreciation



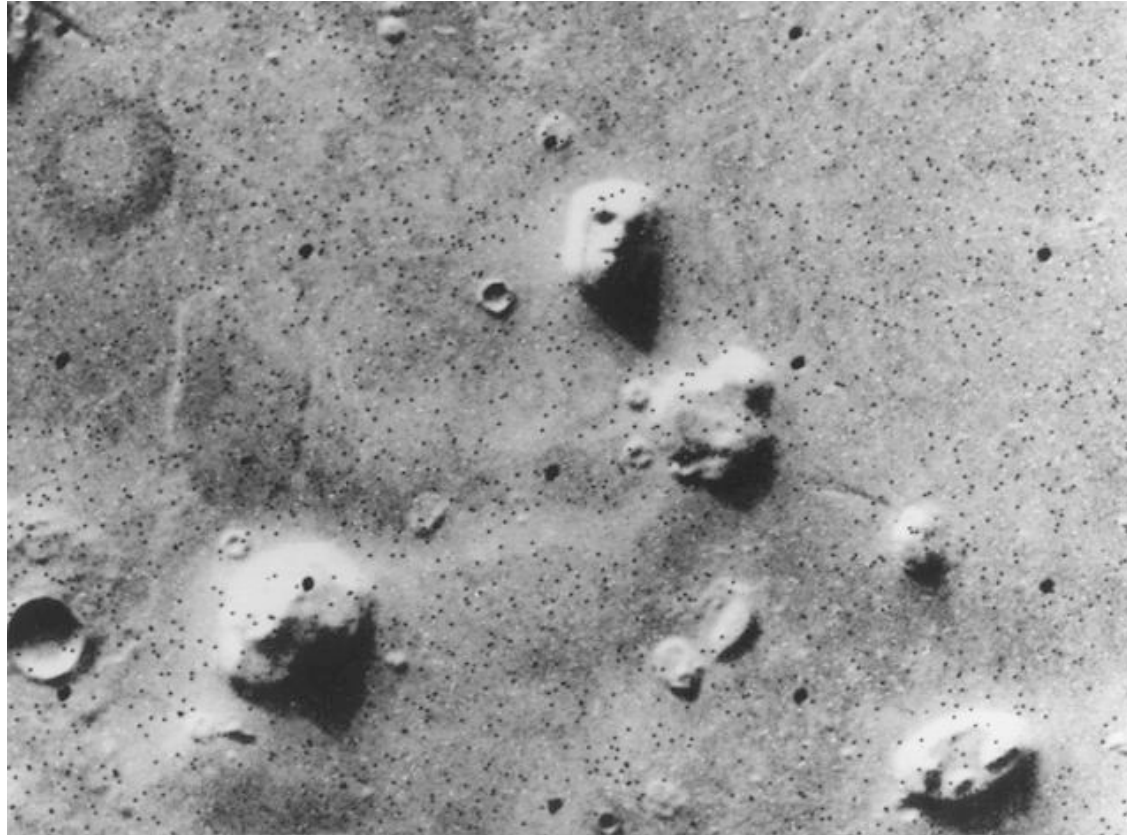
Martha Washington, Mammoth Cave

Developing Aesthetic Appreciation



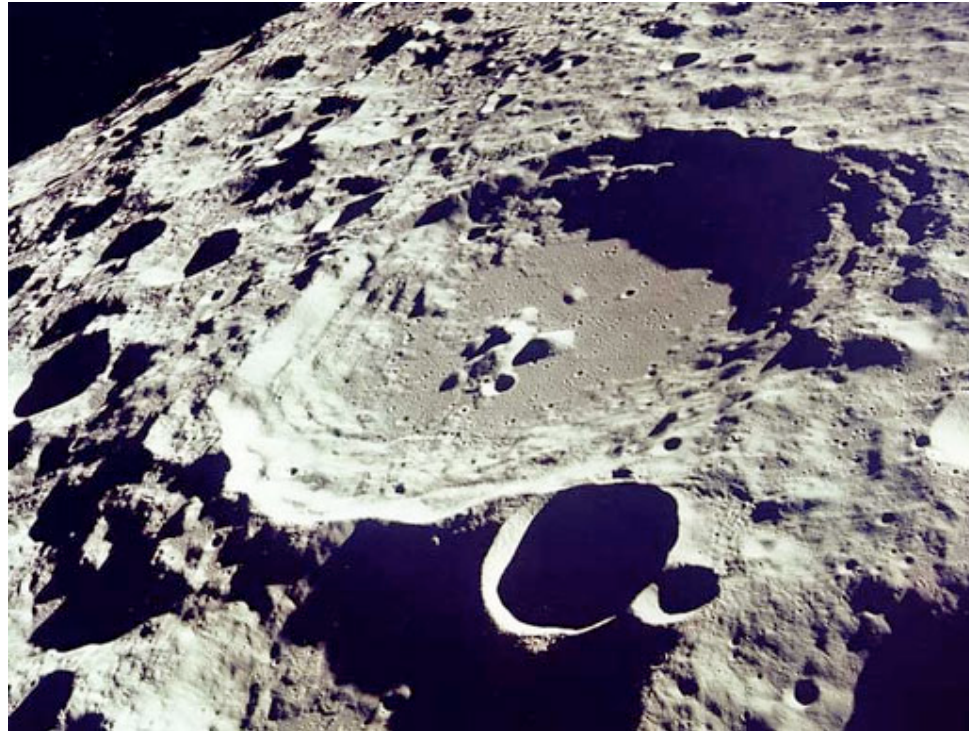
Independence Rock—A. J. Miller

Developing Aesthetic Appreciation



Face on Mars

Developing Aesthetic Appreciation



Daedalus Crater, Moon

Developing Aesthetic Appreciation



Scenic View, Moon

Developing Aesthetic Appreciation

". . . its beautiful waters, the rugged mountains rising around it, spotted with snow, perhaps which has lain for centuries, all conspire to form an enchanting picture. It lacks many of the elements of the Swiss lakes, of Lake Geneva, it lacks the grassy, green sloping hills, the white-walled town, the castles with their stories and histories, the chalets of herders—in fact, it lacks all the elements that give their peculiar charm to the Swiss scenery, its beauty is truly Californian."

William H. Brewer, Lake Tahoe in 1860s

Developing Aesthetic Appreciation

"The landscape is a uniformly grey-brown color, no forests, no pastures, no green, but little water, nothing to cheer the eye, or revive the spirits of a passing traveller. So it seems—but at sunset & sunrise the most beautiful tints rest on the mountains, and the landscape has a peculiar beauty of its own, or perhaps a peculiar interest rather than beauty."

William H. Brewer, Lake Tahoe in 1860s

Developing Aesthetic Appreciation

“It has a stark beauty all its own. It’s much like the high desert of the United States. It’s different, but it’s very pretty out here.”

Neil Armstrong, Sea of Tranquility, Moon

Developing Nature Preservation in the Solar System

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However, what happens to the natural objects promoted by NASA could trigger the Hartmann scenario, creating an environmental opposition.

Practical Matters

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- ❖ Introduce life forms with great caution

Ethical Matters—Natural Objects

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- ❖ We have a duty not to the natural objects themselves
- ❖ Rather, we have a duty to those who value them

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- ❖ Unnecessary suffering will not be an issue unless higher organisms are found or introduced

Intrinsic versus Instrumental Value

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Intrinsic versus Instrumental Value

Attending to the intrinsic value of natural objects does not prevent the use of extraterrestrial environments anymore than it does on Earth.

But it may place some limits on what can be used without public outcry and political opposition.

Cost of Nature Perservation

An architect from Georgia once said:

“Normally it doesn’t cost more to do something right than to do it wrong.”

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The cost of fixing something may end up being many times the cost of the original project.

—And the damage to one’s reputation and effectiveness may be permanent.

Possible Environmental Partners

- ❖ Smithsonian Institution
- ❖ National Park Service
- ❖ National Space Society
- ❖ Planetary Society
- ❖ Mars Society
- ❖ Other space and environmental groups

Beyond Environmental Partners

Ultimately, NASA may need a God committee comparable to the God committee for the Endangered Species Act to protect NASA from potentially bad decisions.

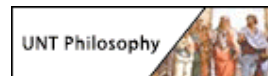
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UNESCO LUNAR RESERVE

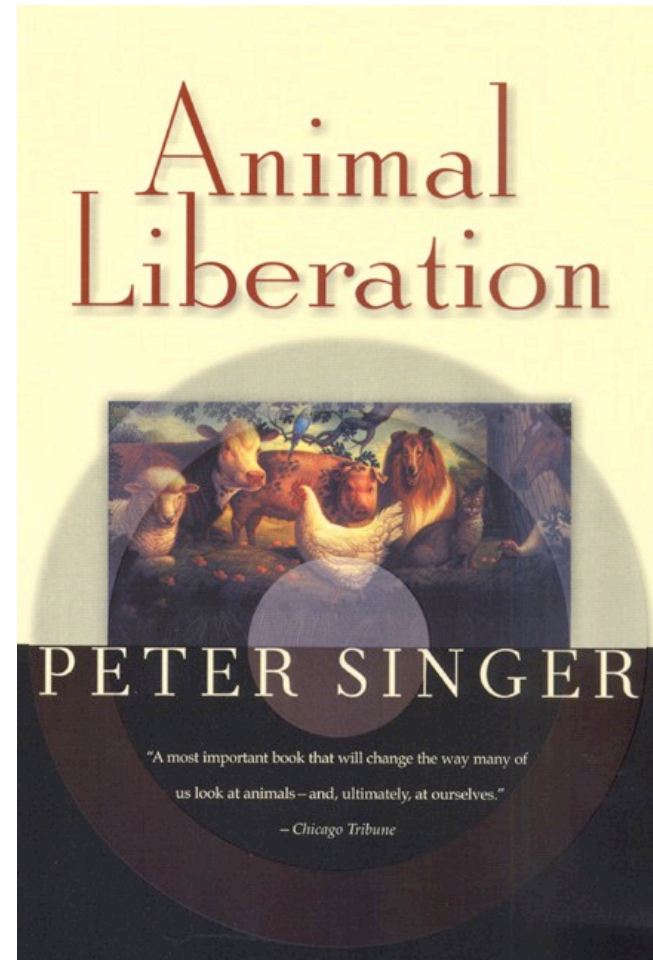
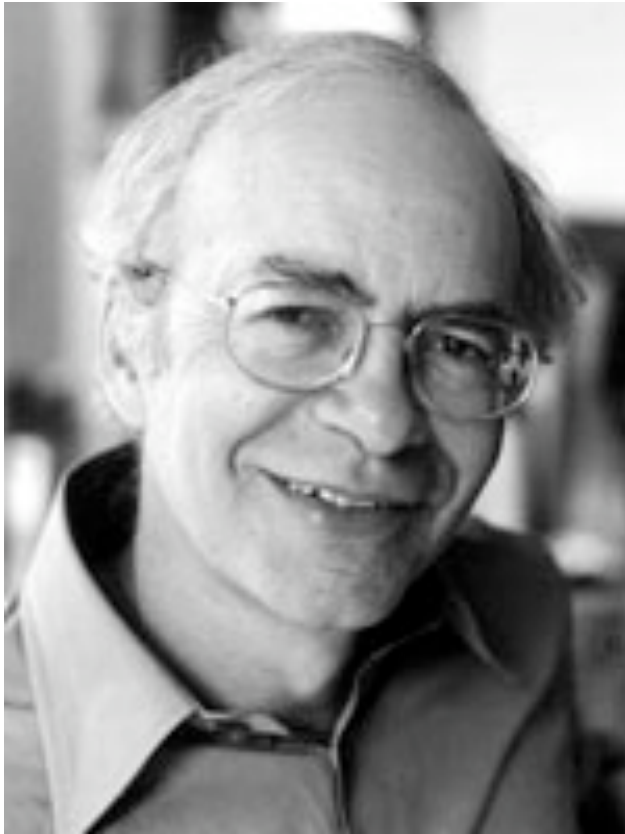
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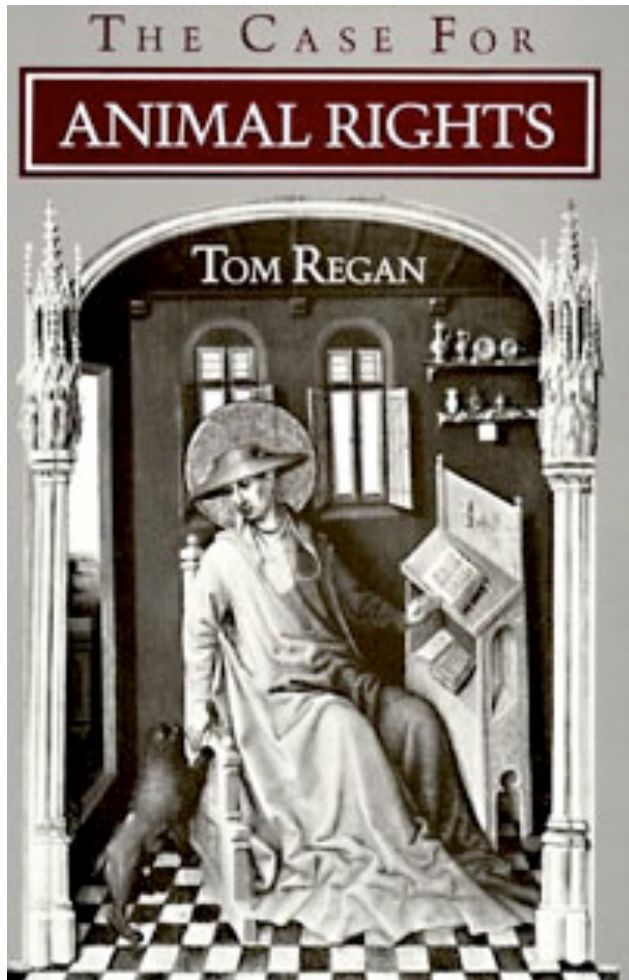


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Peter Singer and Animal Liberation



Tom Regan and Animals Rights



The Origins of Environmental Ethics

The concern for the environmental protection of species originated not in ecology or evolution, but in species classification activities.

Concern for species protection predates talk about ecology and evolution by more than a half century.

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The concern for the environmental protection originated not in ecology or evolution, but in species classification activities.

Concern for species protection predates talk about ecology and evolution by more than a half century.

Since it developed long before them, it is not derived from them.

The Origins of Environmental Ethics

Key Phrase:

Wanton Destruction

It is morally wrong to destroy members of species wantonly (for no useful purpose).

The Origins of Environmental Ethics



Concern about the buffalo began in 1804 when John Bradbury wrote about their wanton destruction by fur trappers on the Upper Missouri.

The Origins of Environmental Ethics



The first national movement to protect a species began in 1857, with a vote by the AAAS. It was undertaken to protect a plant, not an animal.

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- ❖ The concern was about the extinction of species.
- ❖ Species extinction was believed to produce holes in the Great Chain of Being.
- ❖ Although ecology and evolution should have weakened this concern, it transferred easily to the new scientific perspectives.

The Origins of Environmental Ethics

This concern, however, had nothing to do with pain and suffering.



The Origins of Environmental Ethics



Although George Catlin denounced the wanton destruction of the buffalo, one day he shot one and studied its suffering for an entire day, painting pictures of its suffering.

How Species Preservation Works



Whooping Crane



California Condor

How Species Preservation Works

❖ Efforts to protect the species produce behavior that is much the same as recognition of rights for each individual member of the species.

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- ❖ Efforts to protect the species produce behavior that is much the same as recognition of rights for each individual member of the species.
- ❖ However, the object is to increase the population to the point where the death of any individual is of little or no concern, morally or otherwise.

What Extraterrestrial Ethics Might Be Like

If we meet dangerous extraterrestrial aliens, self-defense will always be acceptable.



What Extraterrestrial Ethics Might Be Like

If they are exotics, we may be free to exterminate them.



What Extraterrestrial Ethics Might Be Like

If they are in their natural habitat, we may set aside areas for them to live freely.



What Extraterrestrial Ethics Might Be Like

We may come to admire them, and value them for their own sake.

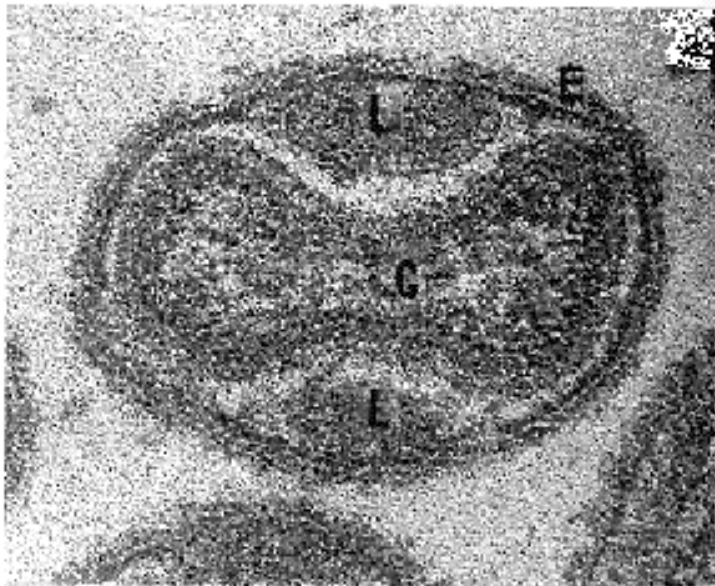


What Extraterrestrial Ethics Might Be Like

. . . and their children.



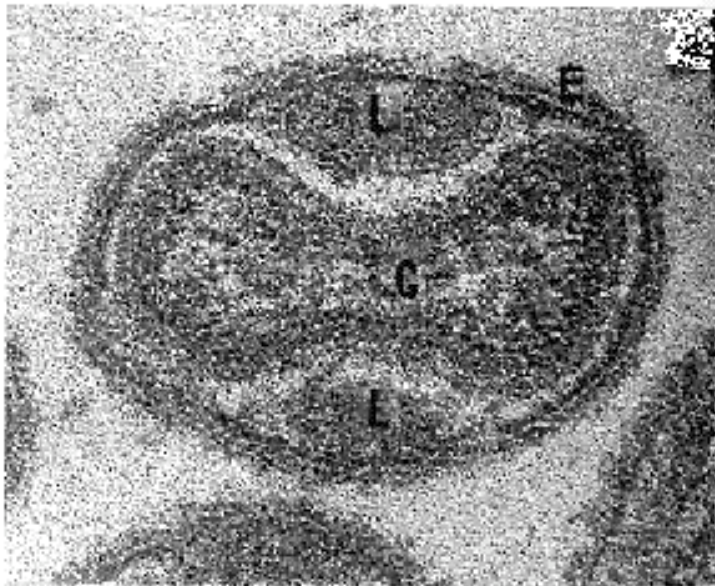
What Extraterrestrial Ethics Might Be Like



Electron Micrograph of Variola Major

If some microbes are as dangerous as smallpox, we may exterminate them in the wild,

What Extraterrestrial Ethics Might Be Like



Electron Micrograph of Variola Major

. . . but keep a supply of them available in case of a medical emergency.

What Extraterrestrial Ethics Might Be Like



And we might even decide that they are cute enough to care about—even something like the ebola.

Conclusion

An extraterrestrial environmental ethic will most likely be a reverence-for-life-forms ethic,

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The focus will be on the preservation of the species, and the system in which the species exists, not the individual.